

ABSTRACT

5 The invention relates to embossing single-ply paper products, for example, paper towels, tissue and napkins, in which an improved embossing arrangement is used which is particularly suitable for paper products which have been processed so as to impart undulations whose axes extend in a principal undulatory direction, typically in the machine direction. The absorbent sheet typically further includes
10 undulations which extend in the cross (transverse direction) of the web such that the absorbent sheet has a biaxially undulatory structure. The undulations may be formed by the use of an undulatory creping blade. Defined parameters accommodate: the distance at which the undulations are spaced, the total surface area of the design (embossing) elements, the width and length of the embossing
15 elements and the aspect ratio of the elements, as well as the angular orientation of the embossing elements with respect to the undulations.